

# **PERISTALTIC PRECISION METERING DEVICE, SYSTEM AND METHOD OF USE THEREOF**

## **Abstract of the Disclosure**

The invention relates generally to a peristaltic precision metering device, system  
5 and method of using the same. Disclosed is a metering device which includes a metering  
element that can engage with a compressible material line, wherein the metering device  
can place a selectable peristaltic effect upon the material in the line. Also disclosed is a  
precision metering system that includes a material delivery unit comprised of a material  
reservoir, material dispensing end, and a compressible material line connecting the two; a  
10 base; and, a metering element that engages the material line between itself and the base,  
and the metering element places a peristaltic effect on the material in the line, from which  
a selectable unit of material is caused to be dispensed from the dispensing end. Also  
disclosed is a metering device comprised of a slidable or rotatable metering element that  
can engage with a compressible material line, and when slid or rotated places a peristaltic  
15 effect upon material in the line, further causing precision dispensing of a unit of material.  
Also disclosed is a metering system comprised of a metering device similar to above and  
a control system attached to the metering element and a robotic positioning system also  
attached to the metering device. Finally disclosed is a method of precision material  
dispensing comprised of providing a metering element and base, positioning a  
20 compressible material line between the metering element and base, moving one of the  
base, metering element, material line, or combination thereof, thereby causing a

peristaltic effect upon material in the line, and dispensing a precise unit of material from the device.